



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,424	04/02/2004	Kenneth Yuen	30932.7US01	1297
23552 7590 03/28/2007 MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			EXAMINER VO, ANH T N	
			ART UNIT	PAPER NUMBER
			2861	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/28/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/817,424	Applicant(s) YUEN, KENNETH	
	Examiner Anh T.N. Vo	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 7-17, 19-24 and 26-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-17, 19-24 and 26-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

FINAL REEJECTION

The objection of claim 27 and the rejections over Gragg et al (US 5,757,90), Ito (US Pat. 6,053,603), Ikkatai (US 6,022,102) and Chaumet (US 4,995,751) re withdrawn in view of the amendment to the claims.

Claim Rejections

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States:

Claims 1, 7-10, 14-16 and 28 are rejected under 35 USC 102 (b) as being anticipated by Barinaga et al (US 6,478,415).

Barinaga et al discloses in figures 2a, 6a-6b an ink refill device comprising:

- ink container (110) configured to be coupled to the ink cartridge (14), the ink container defining at least one internal ink tank (124) (Figure 2a);
- a drain conduit (130, 131) extending between the internal ink tank of the ink container (110) and the ink chamber (30) of the printer ink cartridge (14) (Figure 2a and 4a);
- a vent member (62) (Figure 4a); and
- a pressure varying means (126) configured to alter a pressure condition in the internal ink tank (124) of the ink container while maintaining a fixed spatial relationship between the ink container and the ink cartridge thereby creating to generate ink flow in the drain conduit (130, 131), wherein the pressure varying means (126) is operatively mounted to the ink container (110) and includes a pliable portion of a wall of the ink container (Figure 2a);

- Wherein the pressure varying means (126) increases the ink pressure (Figure 2a);
- Wherein said ink communication path (142, 146, Figure 2a) comprises an elongated ink conduit extending from the at least one ink reservoir into the ink cartridge housing interior (14);
- Wherein the pump (126) is actuatable to initiate ink flow in the drain conduit (130, 131) while the ink cartridge (14) and ink container (110) maintain a fixed spatial relationship relative to each other (Figure 2a);
- Wherein the pump (116) includes a flexible, resilient housing defining an internal chamber that is in fluid communication with the at least one ink reservoir; and
- Wherein the pump (116) includes a button (not shown) shaped actuating member that can be depressed to initiate ink flow.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 8-16, 23 and 28-30 and are rejected under 35 USC 103 (a) as being unpatentable over Yuen (US Pat. 6,347,863) in view of Chaumet (US 4,995,751) and further in view of Barinaga et al (US 6,478,415).

Yuen discloses in Figures 1-7 an apparatus for refilling an ink cartridge comprising:

- ink container (50) configured to be coupled to the ink cartridge (14), the ink container defining at least one internal ink tank (64) (Figure 3);
- a drain conduit (74) extending between the internal ink tank (64) of the ink container (50) and the ink chamber (20) of the printer ink cartridge (14) (Figure 3)
- a vent member (84) (figure 3);

Art Unit: 2861

- wherein the ink container (50) includes a plurality of internal ink tanks (60, 62, 64), each ink tank being fitted with drain and vent conduits (Figure 3); and
- wherein the vent member (82) includes a vent conduit extending between the internal ink tank (64) of the ink container (50) and the ink chamber (20) of the primer ink cartridge (14) (Figure 3).

However, Yuen does not disclose that a pressure varying means is operatively mounted to the ink container and includes a pliable portion of a wall of the ink container and is configured to alter a pressure condition in the internal ink tank of the ink container thereby creating ink flow in the drain conduit into an printer ink cartridge; wherein the pressure varying means is a pump; wherein the pressure varying means is a pliable portion of a wall of the ink container; the pressure varying means increases pressure in the ink tank; wherein the pump is mounted to an exterior surface of the ink container; and wherein the pump includes a button shaped actuating member that can be depressed to initiate ink flow.

Nevertheless, Chaumet suggests in Figures 1-3 an ink device comprising a pressure varying means (pump 17) which is a deformable air bladder to increase the internal pressure for obtaining good flow of ink, see lines 25-54, column 3. Wherein the pressure varying means (17) is a pump and is a pliable portion of a wall of the ink container to increase ink pressure.

Barrinaga et al suggests in Figures 1 an ink cartridge (110) comprising a pressure varying means (126) including a pliable portion of a wall of the ink container (110) for regulating the internal ink pressure of the ink tank that enhances the refill of ink, see lines 50-67, column 4.

It would have been obvious to a person having skill in the art at the time the invention was made to employ the pressure varying means as suggested by Chaumet in the refill system of Yuen for the purpose of obtaining good ink flow and employing a pliable wall of the cartridge to create the pressure varying means as suggested by Barrinaga et al in the refill system of Yuen for the purpose of regulating the internal ink pressure of the ink tank that enhances the refill of ink.

Art Unit: 2861

Claims 17 and 19-22, 24 and 26-27 are rejected under 35 USC 103 (a) as being unpatentable over Yuen (US Pat. 6,347,863) in view of Barinaga et al (US 6,478,415) and further in view of Chaumet (US 4,995,751) and Yuen (US 6,971,740).

Note: The method steps are inherently taught in the apparatus device/limitations in the rejections as follow:

Yuen in view of Barinaga et al and Chaumet discloses a printging device with all of the limitations of the claimed invention as stated above but does not disclose that the bottom portion of the ink cartridge is mounted in a refill base member and releasably coupling the refill base member to the refill ink container, refill holes into the housing interior of the printer ink cartridge is opened ; a foam drill is inserted into the refill holes and engaging the foam within the housing interior with the foam drill; and wherein coupling the at least one ink reservoir in ink flow communication includes extending an ink conduit between the ink reservoir and the ink chamber of the ink cartridge

Nevertheless, Yuen ('740) suggests in Figures 1, 8-9 and 14-15 inserting an ink cartridge into a refill bas member (37) of the refill device (30), and drills (50, 60) for the purpose opening the refill hole and extending the refill passage to facilitate drilling hole into the cartridge and securing the cartridge during refilling.

It would have been obvious to a person having skill in the art at the time the invention was made to insert the ink cartridge of Yen ('863) into a refill device and employing the drills as suggested by Yen ('740) for the purpose opening the refill hole and extending the refill passage to facilitate drilling hole into the cartridge and securing the cartridge during refilling.

Response to Applicant's Arguments

The applicant argues that Chaumet fails to disclose or suggest any other feature that is "a

Art Unit: 2861

pliable portion of a wall of the ink container," as required by claim 1 and "engaging the flexible side wall varies a pressure condition in the internal ink tank of the ink container thereby creating ink flow in the drain conduit," as required by claim 28, "actuator including a pliable portion, the pliable portion providing a fluid-tight seal with the exterior surface of the ink container," as required by claim 8, or "the pressure member providing an air-tight seal with the ink container surface and being void of openings," as required by claim 16, "the pressure varying member exposed to the ink in the ink tank through the opening in the ink container," as required by claim 23, suggest "a drain conduit extending from the bottom wall of the plastic ink container; [and] a vent member extending from the bottom wall of the plastic ink container," as required by claims 29 and 30. The arguments are not persuasive because these limitations are suggested in the Barinaga et al and Yuen (US 6,971,740) references as stated above.

The applicant's arguments over Ikkatai are persuasive without traverse.

CONCLUSION

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262. The examiner can normally be reached on Monday to Friday from 9:00 A.M. to 5:30 P.M..

Application/Control Number: 10/817,424

Page 7

Art Unit: 2861

The fax number of this Group 2861 is (571) 273-8300.

A handwritten signature in black ink, appearing to read 'Anh T. N. Vo', with a long horizontal flourish extending to the right.

ANH T. N. VO
PRIMARY EXAMINER
March 26, 2007